SEQUENCE LISTING

<110> James, Kenneth D
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Malkar, Navdeep B
Miller, Mark A
Ekwuribe, Nnochiri E

<120> Natriuretic Compounds, conjugates, and Uses Thereof

<130> 014811-431.108UTL3

<140> US 11/138,194
<141> 2005-05-26

<150> US 60/574,436
<151> 2004-05-26

<160> 134

<170> PatentIn version 3.3

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<220>
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<222> (5)..(5)
<223> Xaa is a compound, such as an amino acid residue, to which a modifying moiety may be attached

<400> 1

Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly
1 5 10 15

Cys

<210> 2
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<222> (5)..(5)
<223> Xaa is lysine

<220>
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<222> (10)..(10)
<223> Xaa is serine or lysine

<220>
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<222> (11)..(11)
<223> Xaa is serine and may be present or absent

<220>
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<222> (12)..(12)
<223> Xaa is serine and may be present or absent

<220>
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<222> (13)..(13)
<223> Xaa is serine and may be present or absent

<400> 2

Cys Phe Gly Arg Xaa Met Asp Arg Ile Xaa Xaa Xaa Xaa Gly Leu Gly
1 5 10 15

Cys

<210> 3
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<400> 3

Ser Ser Ser Ser
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<220>
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<400> 4

Lys Ser Ser Ser
1

<210> 5
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<220>
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<220>
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<222> (1)..(1)
<223> Xaa is a peptide of from 1 to 10 amino acids and may be absent so long as X19 is present

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
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<222> (19)..(19)
<223> Xaa is a peptide of from 1, 2, 3, 4, 5, or 6 amino acids and may be absent so long as X1 is present

<400> 5

Xaa Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 6
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<220>
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<220>
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<222> (3)..(3)
<223> Xaa is lysine or arginine

<400> 6

Ser Pro Xaa Met Val Gln Gly Ser Gly
1 5

<210> 7
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<220>
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<220>
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<222> (3)..(3)
<223> Xaa is lysine or arginine

<400> 7

Ser Pro Xaa Met Val Gln Gly
1 5

<210> 8
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<223> Xaa is lysine or arginine

<400> 8

Ser Pro Xaa Met Val Gln
1 5

<210> 9
<211> 5
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<213> Artificial Sequence

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<220>
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<222> (3)..(3)
<223> Xaa is lysine or arginine

<400> 9

Ser Pro Xaa Met Val
1 5

<210> 10
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<222> (3)..(3)
<223> Xaa is lysine or arginine

<400> 10

Ser Pro Xaa Met

<210> 11
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<222> (2)..(2)
<223> Xaa is lysine or arginine

<400> 11

Pro Xaa Met Val Gln Gly Ser Gly
1 5

<210> 12
<211> 7
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<222> (1)..(1)
<223> Xaa is lysine or arginine

<400> 12

Xaa Met Val Gln Gly Ser Gly
1 5

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<222> (1)..(1)
<223> Xaa is lysine or arginine

<400> 13

Xaa Val Leu Arg Arg His
1 5

<210> 14
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<223> Xaa is lysine or arginine

<400> 14

Xaa Val Leu Arg Arg
1 5

<210> 15
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<220>
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<220>
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<223> Xaa is lysine or arginine

<400> 15

Xaa Val Leu Arg
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<220>
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<400> 16

Arg Val Leu Arg Arg
1 5

<210> 17
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<220>
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<400> 17

Arg Val Leu Arg
1

<210> 18
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<222> (1)..(1)
<223> Xaa is lysine and may be an amino acid other than lysine so long as one of X12 or X25 is lysine

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<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is lysine and may be an amino acid other than lysine so long as one of X1 or X25 is lysine

<220>
<221> MISC_FEATURE
<222> (25)..(25)
<223> Xaa is lysine and may be an amino acid other than lysine so long as one of X1 or X12 is lysine

<400> 18

Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met Asp Arg Ile
1 5 10 15

Ser Ser Ser Ser Gly Leu Gly Cys Xaa
20 25

<210> 19
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<220>
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<400> 19

Val Leu Arg Arg
1

<210> 20
<211> 18
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<213> Artificial

<220>
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<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> X is an amino acid having a modifying moiety conjugation site coupled to the modifying moiety so long as X18 is any other amino acid or an unconjugated lysine

<220>
<221> MISC_FEATURE
<222> (18)..(18)
<223> X is an amino acid having a modifying moiety conjugation site coupled to the modifying moiety so long as X5 is any other amino acid or an unconjugated lysine

<400> 20

Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly
1 5 10 15

Cys Xaa

<210> 21
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is Ser, SerGly, GlySerGly, GlnGlySerGly, Val GlnGlySerGly, MetValGlnGlySerGly, LysMetValGlnGlySerGly, ProLysMetValGlnGlySerGly, SerProLysMetValGlnGlySerGly, (102 amino acids of human protein positions 1-99 or C-terminal

<220>
<221> MISC_FEATURE
<222> (19)..(19)
<223> Xaa is OH, NH2, NHR', wherein the modifying moiety' and the modifying moiety" are independently lower alkyl (1-4C), or Xaa19 is Lys; LysVal; LysValLeu; LysValLeuArg; LysValLeuArgArg; LysValLeuArgArgHis; or the amides NH2, NHR', or NR' modifying

<400> 21

Xaa Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 22
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<400> 22

Gln Gly Ser Gly
1

<210> 23
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<400> 23

Val Gln Gly Ser Gly
1 5

<210> 24
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 24

Met Val Gln Gly Ser Gly
1 5

<210> 25
<211> 7
<212> PRT
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<220>
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<400> 25

Lys Met Val Gln Gly Ser Gly
1 5

<210> 26
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<400> 26

Pro Lys Met Val Gln Gly Ser Gly
1 5

<210> 27
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<400> 27

Ser Pro Lys Met Val Gln Gly Ser Gly
1 5

<210> 28
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<213> Artificial Sequence

<220>
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<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is the 102 amino acid sequence of positions 1-99 for the human protein or a C-terminal portion thereof

<400> 28

Xaa Ser Pro Lys Met Val Gln Gly Ser Gly
1 5 10

<210> 29
<211> 4
<212> PRT
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<220>
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<400> 29

Lys Val Leu Arg
1

<210> 30
<211> 5
<212> PRT
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<220>
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<400> 30

Lys Val Leu Arg Arg
1 5

<210> 31
<211> 6
<212> PRT
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<220>
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<400> 31

Lys Val Leu Arg Arg His
1 5

<210> 32
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
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<222> (1)..(1)
<223> Xaa is H, HGlySerGly, or HSerProLysMetValGlnGlySerGly

<400> 32

Xaa Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Lys Val Leu Arg Arg His
20

<210> 33
<211> 9
<212> PRT
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<220>
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<400> 33

Ser Pro Lys Met Val Gln Gly Ser Gly
1 5

<210> 34
<211> 19
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<222> (1)..(1)
<223> Xaa is H or HAspSerGly

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<222> (19)..(19)
<223> Xaa is AsnValLeuArgArgTy-OH, AsnValLeuArgArgOH, AsnValLeuArgTyrOH, AsnValLeuArgOH, AsnValLeuOH, or AsnSerPheArgTyrOH, or a salt thereof

<400> 34

Xaa Cys Phe Gly Arg Arg Leu Asp Arg Ile Gly Ser Leu Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 35
<211> 6
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<400> 35

Asn Val Leu Arg Arg Tyr
1 5

<210> 36
<211> 5
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<220>
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<400> 36

Asn Val Leu Arg Arg
1 5

<210> 37
<211> 5
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<400> 37

Asn Val Leu Arg Tyr
1 5

<210> 38
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<220>
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<400> 38

Asn Val Leu Arg
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<210> 39
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<400> 39

Asn Val Leu
1

<210> 40
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<220>
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<400> 40

Asn Ser Phe Arg Tyr
1 5

<210> 41
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<220>
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<223> Xaa is Gly, SerGly, or GlySerGly(AspLys, ArgHisGlnAspLys,
MetValArgHisGlnAspLys, ThrMetMetValArgHisGlnAspLys,
LysThrMetMetValArgHisGlnAspLys,

ProLysThrMetMetValArgHisGlnAspLys, or

<220>
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<222> (25)..(25)
<223> Xaa is OH; NH2; NH2; or NR'R" wherein R' and R" are independently 1-4 carbon lower alkyl; AsnLys; AsnLysVal; AsnLysValLeu; AsnLysValLeuArg; AsnLysValLeuArgArgLys; AsnLysValLeuArgArgLysTyrHis; or the amides (NH2 or NR'R") thereof

<400> 41

Xaa Cys Phe Gly Arg Arg Lys Leu Met Asp Arg Ile Lys Met Gly Ser
1 5 10 15

Ser Leu Ser Ser Gly Leu Gly Cys Xaa
20 25

<210> 42
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<212> PRT
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<400> 42

Arg His Gln Asp Lys Gly Ser Gly
1 5

<210> 43
<211> 10
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<220>
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<400> 43

Met Val Arg His Gln Asp Lys Gly Ser Gly
1 5 10

<210> 44
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<400> 44

Thr Met Met Val Arg His Gln Asp Lys Gly Ser Gly
1 5 10

<210> 45
<211> 13
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<400> 45

Lys Thr Met Met Val Arg His Gln Asp Lys Gly Ser Gly
1 5 10

<210> 46
<211> 14
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<400> 46

Pro Lys Thr Met Met Val Arg His Gln Asp Lys Gly Ser Gly
1 5 10

<210> 47
<211> 15
<212> PRT
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<220>
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<400> 47

Ser Pro Lys Thr Met Met Val Arg His Gln Asp Lys Gly Ser Gly
1 5 10 15

<210> 48
<211> 5
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<400> 48

Asn Lys Val Leu Arg
1 5

<210> 49
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<220>
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<400> 49

Asn Lys Val Leu Arg Arg Lys
1 5

<210> 50
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<400> 50

Asn Lys Val Leu Arg Arg Lys Tyr His
1 5

<210> 51
<211> 19
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<220>
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<222> (1)..(1)
<223> Xaa is Gly, Ser Gly, GlySerGly (AspLys, ArgHisGlnAspLys, MetValArgHisGlnAspLys, ThrMetMetValArgHisGlnAspLys, LysThrMetMetValArgHisGlnAspLys, ProLysThrMetMetValArgHisGlnAspLys, or

<220>
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<222> (19)..(19)
<223> Xaa is OH; NH2,; or NR'R" wherein R' and R" are independently 1-4 carbon lower alkyl; AsnLys; AsnLysVal; AsnLysValLeu; AsnLysValLeuArg; AsnLysValLeuArgArgLys; AsnLysValLeuArgArgLysTyrHis; or the amides (NH2 or NR'R") thereof

<400> 51

Xaa Cys Phe Gly Arg Arg Leu Asp Arg Ile Gly Ser Leu Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 52
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<213> Artificial Sequence

<220>

<223> Natriuretic Peptide

<400> 52

Asn Val Leu Arg Arg Tyr
1 5

<210> 53
<211> 24
<212> PRT
<213> Artificial Sequence

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<220>
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<222> (1)..(1)
<223> Xaa is H, H-Gly-Ser-Gly-, or HSerProLysMetValGlnGlySerGly, and the two cysteines are bridged

<400> 53

Xaa Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Lys Val Leu Arg Arg His
20

<210> 54
<211> 9
<212> PRT
<213> Artificial Sequence

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<400> 54

Ser Pro Lys Met Val Gln Gly Ser Gly
1 5

<210> 55
<211> 5
<212> PRT
<213> Artificial

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<400> 55

Glu Asp Ala Gly Glu
1 5

<210> 56
<211> 4

<212> PRT
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<400> 56

Arg Thr Arg Arg
1

<210> 57
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<220>
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<223> Xaa is any amino acid; HisHisHisHisHisHisAlaAspArgGluArgArg; HisHisHisHisHisHisAlaAspArgVal; HisHisHisHisHisHisAlaAspLys; HisHisHisHisHisHisAlaAspLysIle; HisHisHisHisHisHisAlaAspArgThr; or HisHisHisHisHisHisAlaAspArgIle

<400> 57

Arg Xaa Lys Arg
1

<210> 58
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 58

His His His His His His Ala Asp Gly Glu
1 5 10

<210> 59
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<212> PRT
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<220>
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<400> 59

His His His His His His Ala Asp Arg Thr Arg Arg
1 5 10

<210> 60
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<220>
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<222> (10)..(10)
<223> Xaa is any amino acid or HisHisHisHisHisHisAlaAspArgGluArgArg; HisHisHisHisHisHisAlaAspArgVal; HisHisHisHisHisHisAlaAspLys; HisHisHisHisHisHisAlaAspLysIle; HisHisHisHisHisHisAlaAspArgThr; or HisHisHisHisHisHisAlaAspArgIle

<400> 60

His His His His His His Ala Asp Arg Xaa Lys Arg
1 5 10

<210> 61
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 61

His His His His His His Ala Asp Arg Glu Arg Arg
1 5 10

<210> 62
<211> 10
<212> PRT
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<220>
<223> Natriuretic Peptide

<400> 62

His His His His His His Ala Asp Arg Val
1 5 10

<210> 63
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 63

His His His His His His Ala Asp Lys
1 5

<210> 64
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 64

His His His His His His Ala Asp Lys Ile
1 5 10

<210> 65
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 65

His His His His His His Ala Asp Arg Thr
1 5 10

<210> 66
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 66

His His His His His His Ala Asp Arg Ile
1 5 10

<210> 67
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 67

Ala Asp Gly Glu
1

<210> 68
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 68

His His His His His His Ala Asp Gly Glu
1 5 10

<210> 69
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 69

Arg Glu Arg Arg
1

<210> 70
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 70

Glu Ala Asp Gly Glu
1 5

<210> 71
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 71

His His His His His His Ala Asp Gly Arg Thr Arg Arg
1 5 10

<210> 72
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> MISC_FEATURE
<222> (2)..(2)

<223> Xaa is any amino acid

<400> 72

Arg Xaa Lys Arg
1

<210> 73
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 73

His His His His His His Ala Asp Gly Arg Val
1 5 10

<210> 74
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 74

His His His His His His Ala Asp Gly Asp Lys
1 5 10

<210> 75
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 75

His His His His His His Ala Asp Gly Lys Ile
1 5 10

<210> 76
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 76

His His His His His His Ala Asp Gly Arg Thr
1 5 10

<210> 77
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 77

His His His His His His Ala Asp Gly Arg Ile
1 5 10

<210> 78
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 78

Arg Arg Asp Ala Glu Asp Pro Arg
1 5

<210> 79
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 79

Glu Gly Asp Arg Arg
1 5

<210> 80
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 80

His His His His His His Glu Gly Asp Arg Arg
1 5 10

<210> 81
<211> 8
<212> PRT
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<223> Natriuretic Peptide

<400> 81

Arg Arg Asp Ala Glu Asp Arg Arg
1 5

<210> 82
<211> 5
<212> PRT
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<220>
<223> Natriuretic Peptide

<400> 82

Glu Gly Asp Arg Arg
1 5

<210> 83
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is an amino acid sequence from 3 to 40 amino acid residue in length

<400> 83

His His His His His His Xaa Glu Gly Asp Arg Arg
1 5 10

<210> 84
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 84

Arg Gly Asp Ala Glu Asp Pro Arg
1 5

<210> 85
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Natriuretic Peptide

<400> 85

Glu Gly Asp Pro Arg
1 5

<210> 86
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 86

His His His His His His Glu Gly Asp Pro Arg
1 5 10

<210> 87
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 87

Ala Arg Gly Asp Ala Glu Asp Pro Arg
1 5

<210> 88
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 88

Glu Gly Asp Pro Arg
1 5

<210> 89
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 89

His His His His His His Glu Gly Asp Pro Arg
1 5 10

<210> 90
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is any amino acid sequence from 3 to 40 amino acid residues in length

<400> 90

His His His His His His Xaa Met Met
1 5

<210> 91
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 91

Asp Asp Ala Gly Glu
1 5

<210> 92
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 92

Ala Asp Gly Glu
1

<210> 93
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 93

Glu Ala Gly Glu
1

<210> 94
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 94

Glu Gly Asp Ala
1

<210> 95
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 95

Glu Gly Asp Ala His His His His His His Glu
1 5 10

<210> 96
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 96

Glu Gly Asp Ala Glu
1 5

<210> 97
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 97

Glu His His His His His His Ala Asp Gly Glu
1 5 10

<210> 98
<211> 31
<212> PRT
<213> Artificial Sequence

<220>

<223> Natriuretic Peptide

<400> 98

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg
20 25 30

<210> 99
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa is lysine or an amino acid other than arginine

<400> 99

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Xaa Tyr
20 25 30

<210> 100
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is an amino acid modifying moiety conjugation site

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is an amino acid modifying moiety conjugation site

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa is an amino acid modifying moiety conjugation site

<400> 100

Ser Pro Xaa Met Met His Xaa Gly Gly Cys Phe Gly Arg Arg Leu Asp

1 5 10 15

Arg Ile Gly Ser Leu Ser Gly Leu Gly Cys Asn Val Leu Arg Xaa Tyr
20 25 30

<210> 101
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is an amino acid modifying moiety conjugation site

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa is an amino acid modifying moiety conjugation site

<400> 101

Glu Val Xaa Tyr Asp Pro Cys Phe Gly His Xaa Ile Asp Arg Ile Asn
1 5 10 15

His Val Ser Asn Leu Gly Cys Pro Ser Leu Arg Asp Pro Arg Pro Asn
20 25 30

Ala Pro Ser Thr Ser Ala
35

<210> 102
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 102

Gly Leu Ser Lys Gly Cys Phe Gly Leu Lys Leu Asp Arg Ile Gly Ser
1 5 10 15

Met Ser Gly Leu Gly Cys
20

<210> 103
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is methionine or isoleucine, and when a modifying moiety conjugation site is at the N-terminus, then R is changed to lysine instead of arginine

<400> 103

Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Xaa Asp Arg Ile Gly
1 5 10 15

Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20 25

<210> 104
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (27)..(27)
<223> Xaa can be any naturally occurring amino acid

<400> 104

Ser Pro Arg Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa
20 25

<210> 105
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 105

Lys Val Leu Arg Arg
1 5

<210> 106
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 106

Lys Val Leu Arg
1

<210> 107
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is lysine or an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (27)..(27)
<223> Xaa is lysine or an amino acid other than lysine

<400> 107

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg His
20 25 30

<210> 108
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is a C-terminus modification site such as serine

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> Xaa is an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa is an amino acid other than lysine

<400> 108

Xaa Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met
1 5 10 15

Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg
20 25 30

<210> 109
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is 1 to 10 amino acids

<220>
<221> MISC_FEATURE
<222> (19)..(19)
<223> Xaa is 1 to 10 amino acids

<400> 109

Xaa Cys Phe Gly Arg Arg Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 110
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 110

Ser Pro Lys Met Val Gln Gly Ser Gly Cys
1 5 10

<210> 111
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 111

Pro Lys Met Val Gln Gly Ser Gly Cys
1 5

<210> 112
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 112

Lys Met Val Gln Gly Ser Gly Cys
1 5

<210> 113
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 113

Met Val Gln Gly Ser Gly Cys
1 5

<210> 114
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 114

Val Gln Gly Ser Gly Cys
1 5

<210> 115
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 115

Gln Gly Ser Gly Cys
1 5

<210> 116
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 116

Gly Ser Gly Cys
1

<210> 117
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 117

Ser Pro Lys Met
1

<210> 118
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 118

Ser Pro Lys Met Val
1 5

<210> 119
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 119

Ser Pro Lys Met Val Gln
1 5

<210> 120
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 120

Lys Met Val Gln
1

<210> 121
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 121

Lys Met Val Gln Gly
1 5

<210> 122
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 122

Lys Met Val Gln Gly Ser
1 5

<210> 123
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<400> 123

Lys Met Val Gln Gly Ser Gly
1 5

<210> 124
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)

<223> Xaa is arginine, or amino acid other than lysine

<400> 124

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu
20 25

<210> 125
<211> 26
<212> PRT
<213> Artificial

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is arginine, glycine, or amino acid other than lysine

<400> 125

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys
20 25

<210> 126
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> X is 1 to 10 amino acids

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is 1 to 10 amino acids

<400> 126

Xaa Cys Phe Gly Arg Arg Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Arg Val Leu Arg Arg
20

<210> 127
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is arginine, or an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa is 1 to 4 amino acids

<400> 127

Cys Phe Gly Arg Xaa Met Asp Arg Ile Xaa Gly Leu Gly Cys
1 5 10

<210> 128
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (30)..(30)
<223> Xaa is lysine or an amino acid other than arginine

<400> 128

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Arg Xaa Arg
20 25 30

<210> 129
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (27)..(27)

<223> Xaa is arginine or an amino acid other than lysine

<400> 129

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg
20 25 30

<210> 130
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (32)..(32)
<223> Xaa is lysine, cysteine, or lysine + Xaan where n is 1-100, 1-50 or 1-10, and Xaa is any amino acid, or group of amino acids independently selected, or an unknown amino acid

<400> 130

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg Xaa
20 25 30

<210> 131
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is arginine or an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa is 1 to 4 amino acids

<400> 131

Cys Phe Gly Arg Xaa Met Asp Arg Ile Xaa Gly Leu Gly Cys
1 5 10

<210> 132
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Glx is arginine or an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Glx is arginine or an amino acid other than lysine

<220>
<221> MISC_FEATURE
<222> (23)..(23)
<223> Xaa is glycine-methionine-leucine, phenylalanine, isoleucine, or a conservative substitution thereof

<220>
<221> MISC_FEATURE
<222> (24)..(24)
<223> Xaa is leucine, tryptophan, tyrosine, or phenylalanine or a conservative substitution thereof

<220>
<221> MISC_FEATURE
<222> (25)..(25)
<223> Xaa is glycine, arginine, or a conservative substitution thereof

<400> 132

Ser Pro Glx Met Val Gln Gly Ser Gly Cys Phe Gly Arg Glx Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Xaa Xaa Xaa Cys
20 25

<210> 133
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa is threonine, D alanine, arginine, histidine, proline, or glutamic acid

<220>
<221> MISC_FEATURE

<222> (12)..(12)
<223> Xaa is lysine, N-methyl, arginine, serine, aspartic acid, or proline

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Xaa is arginine, lysine, tyrosine, phenylalanine, serine, proline, ornithine, hemoarginine, hemoarginine, p-amidinophenyl alanine, isoleucine, or another amino acid that has a positive charge other than glycine or tyrosine

<400> 133

Lys Cys Phe Lys Gly Lys Asn Asp Arg Xaa Lys Xaa Gln Ser Gly Leu
1 5 10 15

Xaa Cys Asn Ser Phe Lys Tyr
20

<210> 134
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Natriuretic Peptide

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is BNP

<220>
<221> MISC_FEATURE
<222> (19)..(19)
<223> Xaa is BNP

<220>
<221> MISC_FEATURE
<222> (26)..(26)
<223> Xaa is BNP

<220>
<221> MISC_FEATURE
<222> (33)..(33)
<223> Xaa is BNP

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Xaa is BNP

<400> 134

His His His His His His Glu Gly Asp Arg Arg Xaa Arg Arg Asp Ala
1 5 10 15

Glu Asp Xaa Arg Arg Asp Ala Glu Asp Xaa Arg Arg Asp Ala Glu Asp

20 25 30

Xaa Arg Arg Asp Ala Glu Asp Xaa
35 40